

# TROUBLESHOOTING TIPS



**RETURN POLICY:** All products carry a manufacturer's warranty. Defective products must be returned to Power Factor within the warranty period. **Power Factor will replace or repair all defective products**, at Power Factor's option. Items returned in re-saleable condition will be replaced. Used items will be repaired. **Call for RMA number.**

## 1. In case of No Output – what to check

No.	Possible Causes	Check Points	Solutions
1	Wrong AC voltage is applied.	In case of dual input voltage power supply, check to see if the power supply needs jumper selector for AC input and use it properly.	Make sure to use the jumper on appropriate models.
2	AC voltage is not applied to power supply correctly.	Wrong input connection? For example, AC (L) or (N) is connected to FG terminal.	Check and correct the input connection if necessary.
3		Is external fuse blown?	1) If the built-in fuse is blown, return the power supply to us for repair. 2) If the built-in fuse has no problem, change the external fuse to one that can withstand the inrush current of the power supply and has the same voltage/current rating as the built-in fuse.
4	1) Wrong Connection. 2) Loosened terminal screws.	Is the wiring to the load correct? (For example, +V and -V are connected in reverse).	Correct the connection.
5		Check to see if the wiring to the load shorted together accidentally.	Correct the problem by checking the wiring isolation.
6		Terminal screws have loosened?	Tighten the terminal screws.
7	Overvoltage protection has been operated.	Is output voltage adjuster (trim pot) turned too far clockwise?	Switch off the power supply, turn output voltage adjuster to its maximum counterclockwise, and wait for 5 minutes before switching on the power supply again.
8		Sensing terminal screws have loosened?	Tighten the screws.
9		Is sensing wiring correct?	Connect the sensing wires according to the instruction manual.
10		Are sensing wires disconnected?	Re-connect.
11	Overcurrent protection has been operated.	Are there any chances that the drawing current has become greater than the rated output current?	Check the rated output current of the power supply used and measure the current actually drawn from power supply.
12	Remote ON/OFF is off.	In case of AC/DC power supply: Is RC terminal connected to RCG terminal?	Connect (short circuit) RC terminal to RCG terminal.
13		In case of DC/DC power supply: Is RC terminal connected to -V input?	Connect (short circuit) RC terminal to -V input.
14	Power supplies used in series operation.	Are the power supplies used allowed series operation?	Change the power supplies to those allowed series operation.
15	Thermal protection has been operated.	Is the ambient temperature higher than the specified maximum operating temperature?	Switch off the power supply and cool it down to room temperature before switching on again.
16		Are there any obstacles around the power supply that are physically stopping the built-in cooling fan or the air flow?	Remove the obstacles, switch off the power supply, and cool it down to room temperature before switching on again.
17	There is condensation on power supply.	Is there water splash on power supply?	Keep power supply away from water splash!!
18		Are there any sudden changes in ambient temperature?	Use power supply where ambient temperature is stable.

**SEE BACK**

## 2. In case of Abnormal Output Voltage (Too High, Too Low, Unstable) – what to check

No.	Possible Causes	Check Points	Solutions	
1	When output voltage is too high.	Output voltage is set too high.	Is output voltage adjuster (trim pot) turned too far clockwise?	Turn output voltage adjuster counterclockwise.
2			Is there any external voltage from another source applied to the same load?	Change the load circuit so that there will be no external voltage applied through the load to the power supply.
3			Has the sensing terminal screw loosened?	Tighten the screws.
4	When output voltage is too low.	Input voltage is too low.	Is input voltage lower than the minimum specified?	Measure the input voltage.
5				Is wave form of input voltage distorted?
6		Output voltage is set too low.	Is output voltage adjuster (trim pot) turned too far clockwise?	Turn output voltage adjuster clockwise.
7		There is a voltage drop caused by output wires.	Is voltage drop caused by long output wires to the load?	Make the output wires shorter.
8				Is voltage drop caused by thin (high-AWG) output wires to the load?
9			Is there any bad connection?	Check the connection.
10		Have the terminal screws loosened?	Tighten the screws.	
11	Overcurrent protection has been operated.	Are there any chances that the drawing current has become greater than the rated output current?	Check the rated output current of the power supply used and measure the current actually drawn from power supply.	
12	When output voltage is unstable.	There is oscillation caused by remote sensing.	Are the sensing wires too long?	Use electrolytic capacitor between output terminal ( $\pm V$ , $\pm M$ ) and sensing terminal ( $\pm S$ ).
13			Are the sensing wires twisted?	Twist the wires.
14	Minimum output current required is not drawn.	In case of some multiple output type power supplies, a minimum drawing current is required on +5V output. Check to see if there is minimum load requirement for the power supply.	1) Draw a minimum current required on +5V. 2) Use a power supply whose +5V output has no minimum drawing current requirement.	